AMENDMENTS TO THE CLAIMS

Docket No.: 21854-00073-US1

- 1. (Original) A biological sensor which incorporates
- a) a first layered SAW device consisting of a piezoelectric crystal with interdigital electrodes on its surface, and second piezoelectric layer over said interdigital electrodes
- b) a second layered SAW device consisting of a piezoelectric crystal with interdigital electrodes on its surface, a second piezoelectric layer over said interdigital electrodes and an analyte sensitive surface on said second piezoelectric layer
 - c) both saw devices are fabricated on the same substrate
- d) reflectors are located adjacent the interdigital electrodes in each saw device to reduce the bandwidth of the device
 - e) the resonator circuits of each saw sensor incorporate amplifiers which are dependent.
- 2. (Original) A biological sensor as claimed in claim 1 in which the second layered device consists of a thin film layer with interdigital electrodes on its surface, a second piezoelectric layer over said interdigital electrodes and an analyte sensitive surface on said second piezoelectric layer.
- 3. (Original) A biological sensor as claimed in claim 1 in which the piezoelectric crystal is Lithium Niobate or Lithium Tantalate and the second piezoelectric layer is zinc oxide.
- 4. (Currently amended) A biological sensor as claimed in claim 2-or 3 in which the analyte sensitive surface is gold.
- 5. (Currently amended) A biological sensor as claimed in claim 2-or-3 in which the cavity length of the two SAW devices is not less than 90% of the centre to centre distance of the two devices.
- 6. (Currently amended) A biological sensor as claimed in claim 2-or 3 in which the aperture size is approximately 200 wavelengths.

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7. (Currently amended) A biological sensor as claimed in claim 2-or 3 in which grooved gratings are used.